

REMARKS

This application has been carefully reviewed in light of the Office Action dated March 24, 2010. Claims 1, 3 to 5, 7 to 9 and 11 to 15 remain pending in the application, with Claims 2, 6 and 10 having been canceled. Claims 1, 5 and 9 are independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 15 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,310,942 (Bashoura) in view of U.S. Patent No. 6,618,165 (Sehgal). Reconsideration and withdrawal of the rejections are respectfully requested in light of the following comments.

The present claims generally concern a communication apparatus capable of executing a facsimile communication, which is equipped with a communication control means connected to a network (e.g., INTERNET). By the communication control means, if an opponent station has an IP address, image data is communicated on the basis of an IP communication protocol, while whenever the opponent station does not have the IP address, a facsimile signal obtained by facsimile modulation of the image data is digitally encoded (in the communication apparatus itself), and the digitally coded signal is sent to the opponent station utilizing a PCM encoding method of at least 64 kbps through a media gateway on an opponent station side. Thus, with this configuration, the communication apparatus according to the present claims does not necessarily need component parts for connecting the communication apparatus itself to a PSTN (e.g., a modular jack plug-in, a network control unit (NCU) including relays and so on) because the image data in the facsimile modulated signal is sent via the network interface to the media gateway (which is generally operated by an ISP) to be converted and connected to the PSTN.

Further, by utilizing a PCM encoding signal of at least 64 kbps, it is ordinarily possible to reduce quantization errors and ensure that two-way communication between the communication apparatus and opponent station, via the media gateway, can be successfully made and maintained for the duration of the image data transmission.

In this regard, the claims have been amended to recite sending the digital coded signal to the opponent station utilizing a PCM encoding method of at least 64 kbps through a media gateway on an opponent station side. These features relate to successful two-way communication between the communication apparatus and the opponent station when the opponent station does not have an IP address. Because such communication must be accomplished via a media gateway (with the attendant analog/digital signal conversion), the digital encoded signal arriving at the media gateway must be of such a speed as to enable the communication between the media gateway and the opposing station without significant errors (see page 36, line 5 to page 37, line 7). By utilizing a PCM encoding method of at least 64 kbps, it is ordinarily possible to ensure successful two-way communication between the communication apparatus and the opponent station (see, e.g., page 43, lines 5 to 24, and Fig. 3B).

Referring specifically to the claims, amended independent Claim 1 is directed to a communicating apparatus for digitally encoding a speech signal by digital encoding means and sending the coded signal to an opponent station, thereby making VoIP speech communication and sending and receiving image data to/from the opponent station, comprising communication control means for, when image data is sent to the opponent station, if the opponent station has an IP address, selecting a first image communicating procedure by which the image data is not facsimile-modulated but sent and received

to/from the opponent station on an IP network on the basis of a predetermined IP communication protocol by using the IP address of the opponent station obtained from a predetermined server on the basis of a telephone number of the opponent station, and whenever the opponent station does not have the IP address, selecting a second image communicating procedure by which the image data is facsimile-modulated by a predetermined facsimile modulating method, an analog facsimile signal obtained by the facsimile modulation is digitally encoded by the digital encoding means, and subsequently, the digital coded signal is sent to the opponent station utilizing a PCM encoding method of at least 64 kbps through a media gateway on an opponent station side for executing analog/digital signal conversion between the IP network and a public line network, wherein in said second image communicating procedure, the digital encoding method of said digital encoding means is switched to the digital encoding method suitable for said facsimile modulating method, and a tone signal necessary for a facsimile communication procedure or the facsimile-modulated transmission image data is inputted to said digital encoding means.

Claims 5 and 9 are method and computer medium claims, respectively, that substantially correspond to Claim 1.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 1, 5 and 9, and in particular, is not seen to disclose or to suggest at least the features of a communication apparatus having a communication control means that, whenever the opponent station does not have the IP address, selects a second image communicating procedure by which image data is facsimile-modulated by a predetermined facsimile modulating method, an analog facsimile

signal obtained by the facsimile modulation is digitally encoded by a digital encoding means, and subsequently, the digital coded signal is sent to the opponent station utilizing a PCM encoding method of at least 64 kbps through a media gateway on an opponent station side for executing analog/digital signal conversion between the IP network and a public line network, wherein the digital encoding method of said digital encoding means is switched to the digital encoding method suitable for said facsimile modulating method, and a tone signal necessary for a facsimile communication procedure or the facsimile-modulated transmission image data is inputted to said digital encoding means.

Bashoura is seen to disclose a fax routing system in which, when a telephone number is dialed, fax director 3 looks up the number in a table 7 of computer 5 to see if there is a corresponding Internet address (e.g., IP address or E-mail address). If so, fax director 3 downloads the fax from local fax machine 1, converts the fax into a computer file (depending on whether an IP address or just an E-mail address are present) and sends the computer file via the Internet address. If no corresponding Internet address is found, then fax director 3 informs local fax machine 1, which then delivers the fax via normal fax deliver on the telephone network. Thus, the system of Bashoura employs the PSTN and does not send the image data which is facsimile modulated and encoded into a digital coded signal utilizing a PCM encoding method of at least 64 kbps to a media gateway on the opponent side for executing analog/digital conversion between the IP network and the public line network.

Sehgal is merely seen to teach a system for transmitting facsimiles via the internet between conventional facsimile machines. In Sehgal, an originating fax machine 102 scans an image, dials an originating end office, which then accepts the fax image,

forwards it to a gateway 106. The originating end office then terminates the phone call with the originating fax 102 (column 3, lines 36 to 39), determines an IP address for the receiving side, and forwards it to the gateway 106, whereby the gateway 106 sends the scanned image data to the terminating gateway 112. The gateway 112 converts the received data to fax format, and then forwards the fax data to the terminating end office 114, which then dials the terminating fax machine 116 and provides the fax data to fax machine 116. If no IP address exists for the terminating side, then the fax data received by the originating office 104 is transmitted via the PSTN to terminating office 114 to be forwarded to fax machine 116.

However, Sehgal is not seen to disclose, if no IP address is present, fax data transmitted via digitally encoded data from facsimile modulated data utilizing a PCM encoding method of at least 64 kbps to a media gateway on the opponent side as in the present claims. Further, Sehgal is not seen to disclose two-way communication between the originating facsimile machine and the terminating facsimile machine as in the present claims, because in Sehgal, even if an IP address is present, communication between the originating facsimile machine 102 and originating gateway 106 is terminated before the fax image is sent to the terminating gateway 112.

Accordingly, neither Bashoura nor Sehgal is seen to disclose or to suggest at least the features of a communication apparatus having a communication control means that, whenever the opponent station does not have the IP address, selects a second image communicating procedure by which image data is facsimile-modulated by a predetermined facsimile modulating method, an analog facsimile signal obtained by the facsimile

modulation is digitally encoded by a digital encoding means, and subsequently, the digital coded signal is sent to the opponent station utilizing a PCM encoding method of at least 64 kbps through a media gateway on an opponent station side for executing analog/digital signal conversion between the IP network and a public line network, wherein the digital encoding method of said digital encoding means is switched to the digital encoding method suitable for said facsimile modulating method, and a tone signal necessary for a facsimile communication procedure or the facsimile-modulated transmission image data is inputted to said digital encoding means.

As a consequence, it is further respectfully submitted that a combination of Bashoura and Sehgal, assuming that such a combination would even be permissible, would not share the advantageous effects of the communication apparatus claimed herein. For example, such a combination would not share the advantageous effect of utilizing a PCM encoding signal of at least 64 kbps to ordinarily allow the reduction of quantization errors and ensure that two-way communication between the communication apparatus and opponent station, via the media gateway, can be successfully made and maintained for the duration of the image data transmission.

In view of the foregoing, amended independent Claims 1, 5 and 9, as well as the claims dependent therefrom, are believed to be allowable over the prior art.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

/Edward Kmett/

Edward A. Kmett
Attorney for Applicant
Registration No.: 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
1290 Avenue of the Americas
New York, New York 10104-3800
Facsimile: (212) 218-2200

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